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# **Curriculum Vitae, Qualifications, Testimony**

**Barbara A. Frederiksen-Cross**

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## Qualifications

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### Education and Experience

Barbara Frederiksen received her basic education at American public schools and completed her High School education at Chemeketa Community College, at the age of sixteen.

She continued her education there, receiving an Associate of Applied Science degree in Computer Programming in 1974 at the age of eighteen.

Since then, she has continued her professional education with technical training from IBM, Amdahl, Hitachi Data Systems, Verhoef, SAS Institute, Merrill Consultants, Microsoft, and other education providers. This education has included advanced training in operating system internals, telecommunication system internals, database internals, diagnostics, system performance engineering, storage management, capacity planning, and data recovery.

Ms. Frederiksen has 40 years' experience in the computer industry and has held positions as, in chronological order: mainframe and midrange applications programmer; system analyst; software development consultant; programming instructor (developing courses in CICS, OS JCL, and VSAM internals); database administrator; systems programmer (problem diagnosis, maintenance and customization of mainframe operating system software and other software products); system performance specialist (for batch, on-line, and database systems); regional manager for a software consulting service provider; operating systems software developer (developing software to enhance the performance of mainframe computing systems); systems programmer (performing hardware planning and performance evaluation, system tuning, network tuning, disaster recovery planning, and managing data availability policies and procedures); systems programmer (responsible for problem resolution, software installation, and system maintenance for mainframe and midrange systems); UNIX system administrator; capacity planner (monitoring business metrics, sales forecasts, computer system performance, directing tuning efforts, and planning upgrades for MVS, AS/400, NCR 3600, Teradata, UNISYS, and UNIX systems); and forensic software analyst.

Ms. Frederiksen was team leader for the storage management/capacity planning team of a fortune 100 company for over three years, responsible for software, robotic tape libraries, management policies, and automated processes used to backup and recover global enterprise computer systems. In this capacity she also developed complex mathematical models to analyze and predict computer performance and capacity demands for national, regional, and global computer operations.

Since 1996 Ms. Frederiksen has worked in the field of computer forensics as a consultant to Johnson-Laird Inc., of Portland, Oregon.

Ms. Frederiksen has performed forensic software analysis for a variety of clients in over 100 civil and criminal matters. These matters include forensic software analysis in the context of copyright, patent, and trade secret disputes. She has analyzed computer software and source code in the context of over 40 Copyright/Trade Secret disputes. Her analysis experience with respect to these matters includes the evaluation and comparison of computer source code and object code to detect copying and derivative works, identification of third party and open source materials, analysis of architectural and other non-literal similarities, and analysis of computer source code to determine whether it incorporates or makes use of specific trade secrets. Copyright and Trade Secret clients include companies such as Caterpillar, Computer Associates, Compuware, FOREX Capital Markets, LexisNexis, iGPS, ProvoCraft, Symantec, and Webtrends.

Ms. Frederiksen has also analyzed computer software, source code, or prior art in the context of over 35 patent disputes with respect to both infringement and validity analysis. Her analysis experience with respect to these matters includes analysis to determine how software functions and whether it practices the specific invention claimed in the patent(s) in suit. She is also experienced in the analysis of computer software that may constitute prior art for litigated patents and analysis of the development history of computer software with respect to on-sale bar issues. Patent clients include companies such as Active Video Networks, Connectix Corporation, Encyclopaedia Britannica, Grantley Patent Holdings, Herman Miller, Hyundai, In-Three, Microsoft, MPI Technologies, Pitney Bowes, Siemens-Rolm, Teknowledge Corporation, and University of Pittsburgh.

Ms. Frederiksen has over 40 years personal experience as a software developer and consultant, and is familiar with licensing and contract practices common in the software industry as they apply to software consulting agreements, custom development, software licensing, and the sale of computer software. In the course of her career she has been responsible for negotiating consulting agreements and custom software development agreements as both a consultant and as a consumer of those services. She has been responsible for negotiating software license agreements for a fortune 100 company and also personally as both a licensee and licensor in such agreements. She has also developed software products and negotiated contracts for their subsequent sale.

Ms. Frederiksen has specialized knowledge of the analysis and remediation of failed software development efforts. She has been involved in software system audits performed by the State of Alaska, as well as forensic analysis relating to contractual disputes and litigation relating to failed software development efforts, licensing disputes, and the deployment and performance of software systems. As a forensic analyst, she has analyzed computer software, source code, and related computer-based evidence in the context of nine Software Licensing and Software Development disputes and three internal investigations relating to due-diligence for software acquisitions.

Ms. Frederiksen also has over five years experience with the oversight and evaluation of clean room procedures used for software development. This experience includes the development of clean room protocols and clean-room oversight for a major software development company, as well as actual experience

programming in a clean room environment. In the context of her work for Johnson-Laird, Inc., Ms. Frederiksen has reviewed and critiqued clean room protocols, prepared educational presentations on clean room procedures and protocols for JLI clients, and evaluated software developed in a clean room to determine whether it was free of inappropriate materials. She has provided testimony at arbitrations and hearings in the United States and Canada relating to clean room development procedures and protocols.

Ms. Frederiksen has experience in the design, implementation, and ongoing administration of databases and multi-dimensional data aggregation systems used to support business analysis, performance reporting, cross-system data sharing, and ad-hoc decision support queries. She has specific experience with the design, programming, tuning, and administration of the hardware, software, and underlying database management systems implemented to support batch and on-line query and update systems, data warehouses, and data marts. She has developed and written application software used to allow users to manipulate and analyze data using pre-defined reports and ad-hoc queries as well as software used in the context of high-volume real time transaction and messaging systems. This experience includes special training from professional organizations such as CMG, and over ten years experience in the evaluation, modeling, and tuning of hardware and software systems' performance and capacity.

She is experienced in the recovery, preservation, and analysis of computer-based evidence. Ms. Frederiksen has assisted with discovery and analysis of computer software and computer-based evidence relating to large scale product liability investigations such as the Vioxx, Propulsid, Rezulin, and Ford/Firestone matters. She has also provided forensic analysis in civil and criminal investigations relating to unauthorized computer access, sabotage, internet trespass, spyware deployment, evidence tampering, and identity theft; as well as analysis performed in the context of internal software audits, acquisitions, and internal investigations relating to employee conduct.

Ms. Frederiksen has provided evidence recovery and analysis in criminal cases for the FBI and for the defense in *State of California v. Saghari*. She was a police reserve specialist with the Hillsboro Police department 2002-2009, assisting in criminal investigations involving computer-based evidence.

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## Papers and Presentations

- "*Cyber Liability from the Trenches: A Front Line Perspective*" (co-authored with Melissa Ventrone of Wilson Elser) Oregon State Bar Navigating the Pitfalls of an Online Business Presence-What Your Clients Need to Know, Tigard, Oregon, September 27, 2013
- "*Drones - A Culture of Fear*" District Of Oregon Conference Innovations in the Law: Science and Technology (joint effort of the US Court for the District of Oregon and the Oregon chapter of the Federal Bar Association), Portland, Oregon, September 20, 2013

- *"How Development Advances Put Security in Retreat"* NW ISSA Security Conference, Portland, Oregon, May 2, 2013
- *"Women in Computing"* Washington State University, Vancouver campus, Vancouver, Washington, March 28, 2011
- *"Open Source Issues in Mergers & Acquisitions"* (co-authored with Katherine C. Spelman, Esq.) Open Source & Security Cincinnati Intellectual Property Law Association (OSS3); Erlanger, Kentucky, October 27, 2011
- *"Reverse Engineering: Vulnerabilities and Solutions"* (co-authored with Susan Courtney) Pacific Northwest Software Quality Conference, Portland, Oregon, October 11, 2011
- *"Basic Computer Forensics (a lesson in modern Geek)"* Santa Clara Public Defenders' Office, San Jose, California, October 26, 2010
- *"Quality Pedigree Programs: Or How to Mitigate Risk and Cover Your Assets"* (co-authored with Marc Visnick and Susan Courtney) Pacific Northwest Software Quality Conference, Portland, Oregon, October 18, 2010
- *"Third Party Code Beware the Trojan Source!"* co-authored with Katherine C. Spelman, Esq., American Bar Association Section of Intellectual Property Law Landslide® Magazine, "in press"
- *"Finding the Snipers and Preserving the Evidence"* Oregon State Bar, Computer & Internet Law Section, Portland, Oregon, September 17, 2010
- *"Challenges in Corporate Forensics – Why Isn't Bigger Better?"* panel participant Digital Forensic Research Workshop (DFRWS), Portland, Oregon, August, 2010
- *"Beware of Geeks Bearing Gifts, Beware The Trojan Source!"* (co-authored with Kate Spelman, Esq.) University of Dayton School of Law: Significant Developments in the Intellectual Property Law of Computers and Cyberspace Conference, Dayton, Ohio, June 11, 2010
- *"Hack to the Future"* NW ISSA Security Conference, Portland, Oregon, May 6, 2010
- *"e-Discovery: Size Matters"* Oregon State Bar, Computer & Internet Law Section meeting, Portland, Oregon, February 23, 2010
- *"Software Pedigree Analysis: Trust But Verify"* (co-authored with Marc Visnick and Susan Courtney) Pacific Northwest Software Quality Conference, Portland, Oregon, October 28, 2009
- *"e-Discovery: Size Matters"* University of Dayton School of Law: Significant Developments in the Intellectual Property Law of Computers and Cyberspace Conference, Dayton, Ohio, June 12, 2009
- *"The Digital Detective: Looking for Evidence on Electronic Devices"* Portland State University, Mathematics Engineering Science Achievement (MESA) Conference, Portland, Oregon, April 11, 2009

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- *"Computer Forensics in Civil Litigation"* Washington State University Vancouver, School of Engineering & Computer Science, Vancouver, Washington, April 7, 2009
  - *"Discovering Electronic Evidence"* Tulane University Law School, New Orleans, Louisiana, March 18, 2009
  - *"E-Discovery: A Survival Guide"* Tulane University Law School, New Orleans, Louisiana, March 16, 2009
  - *"New Technology, New Challenges"* University of Dayton School of Law: Significant Developments In Computer & Cyberspace Law Convention, Dayton, Ohio, June 6, 2008
  - *"Electronic Forensics - Today and Tomorrow"* Washington State University Vancouver, School of Engineering & Computer Science, Vancouver, Washington, April 1, 2008
  - *Will Peer-to-Peer Disappear?* The Berglund Center for Internet Studies at Pacific University of Oregon, Forest Grove, Oregon, February 19, 2008
  - *"Computer Forensics"* panel participant Portland Society for Information Management, Portland, Oregon, November 14, 2007
  - *"Tuned In, Turned On, Spaced Out: How Technology is Changing Our Communities and Shaping Our Future"* panel participant Hillsboro Town Hall (Pacific Institute for Ethics and Social Policy), Hillsboro, Oregon, October 25, 2007
  - *"Basic Computer Forensics (a lesson in modern Geek)"* Santa Clara Public Defenders' Office, San Jose, California, October 23, 2007
  - *"Obtaining & Using Electronic Evidence"* panel participant 2007 National Employment Lawyers Association (NELA) Eighteenth Annual Convention, San Juan, Puerto Rico; June 27-30, 2007
  - *"Where Are We Allowing Technology to Lead Us?"* University of Dayton School of Law Significant Developments In Computer & Cyberspace Law Convention, Dayton, Ohio, June 8, 2007
  - *"Where Are We Allowing Technology to Lead Us?"* Computer Related Investigations, Management, and Education (CRIME), Hillsboro, Oregon, May 16, 2007
  - *"Where Are We Allowing Technology to Lead Us?"* Keynote Address, International Technology Law Association Annual Meeting & World Conference, Chicago, IL; April 26-27, 2007
  - *"The Law Firm's E-Data: A Risk Management Nightmare?"* panel participant 2007 Legal Malpractice & Risk Management Conference, Chicago, IL; March 6-9, 2007
  - *"Computers and Disaster Planning: What Can We Learn from Katrina and SARS?"* Cutting Edge Issues in Technology Law, Seattle, WA, December 7-8, 2006
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- *"Phishing, Pharming, & Wholesale Data Harvesting"* University of Dayton School of Law Significant Developments In Computer & Cyberspace Law Convention, Dayton, Ohio, June 9, 2006
- *"Lessons Learned From Katrina, SARS, and Other Disasters"* University of Dayton School of Law Significant Developments In Computer & Cyberspace Law Convention, Dayton, Ohio, June 9, 2006
- *"e-Discovery and the Proposed Federal Rules of Civil Procedure (FRCP) Changes - How Safe Is The Safe Harbor?"* Cooley Godward LLP, San Diego, California, March 2, 2006
- *"Proposed Changes To Rule 26: A New Game?"*, Oregon State Bar, Business Litigation Continuing Legal Education, Portland, Oregon, November 9, 2005
- *"A View from the Witness Stand,"* Computer Related Investigations, Management, and Education (CRIME), Portland, Oregon, September 7, 2005
- *"The Technology of Electronic Discovery"* Tulane Law School, New Orleans, Louisiana, April 20, 2004
- *"Preserving Documents and Data"*, Association of Trial Lawyers of America, Case Management and Electronic Discovery in Pharmaceutical Litigation, Dallas, Texas, March 7-8, 2003
- *"Documents, Databases, Discovery and the Damned"*, University of Kentucky College of Law 4<sup>th</sup> Annual Computer & Technology Law Institute, Lexington, Kentucky, November 1-2, 2002
- *"Forensic Software Analysis (electronic discovery)"*, Louisiana State Bar Association – Mass Torts Symposium, New Orleans, Louisiana, October 25, 2002
- *"eDiscovery – The Role of an Expert"*, Computer Related Investigations, Management, and Education (CRIME), Portland, Oregon, October 8, 2002
- *"Working with Experts"* (panel member), Computer Law Association, Orlando, Florida, October 3, 2002
- *"Efficient Discovery Through the Use of Technology"* Association of Trial Lawyers of America (ABTL), Atlanta, Georgia, July 20-24, 2002
- *"The Technology of Discovery Issues"* University of Dayton School of Law Advanced Computer and Cyberspace Law Convention, Dayton, Ohio, June 7, 2002
- *"Beyond Common Experience - Persuading the Jury with Expert Testimony Mini-Seminar"* panel participant and software expert, Association of Business Trial Lawyers (ABTL), San Diego, California, May 11, 2002
- *"Computer Searches and Seizures: Some Unresolved Issues,"* 8 Mich. Telecomm. Tech. L. Rev. 1 (2002), Susan W. Brenner and Barbara Frederiksen, available at <http://www.mttlr.org/voleight/Brenner.html>

- *"Information Technology Basics"* Sixth Annual CyberSpace Camp Conference, San Jose, California, February 14-16, 2002
- *"Emerging Issues in CyberSpace: Regulations without Borders and Borders without Regulations"* University of Calgary Faculty of Law, Alberta, Canada, February 6, 2002
- *"Evidence in the Age of Electrons"* Guest Lecturer, Professor Davis's Internet Litigation LLM course, Santa Clara University School of Law, Santa Clara, California, November 17, 2001
- *"Tunnel Blindness: Insecurity and the Internet"* Oregon State Bar Continuing Legal Education Computer Law in the New... new Economy, Portland, Oregon, November 2, 2001
- *"Forensic Software Analysis: Smoking Guns and Spinning Disks Redux"* Louisiana State Bar Class Action/Mass Torts Symposium 2001, New Orleans, Louisiana, October 26, 2001
- *"Beyond Common Experience - Persuading the Jury with Expert Testimony"* panel participant and software expert, Association of Business Trial Lawyers (ABTL), LaQuinta, California, October 12-14, 2001
- *"Tools and Techniques for Forensic Analysis."* 2001 Federal Public Defenders Computer Systems Administrator Conference, San Diego, California, June 12, 2001
- *"Technologies for Data Collection and Snooping."* University of Dayton School of Law Computer and Cyberspace Law Convention, Dayton, Ohio, June 8, 2001
- *"New Technologies and the Legal Issues They Raise."* University of Dayton School of Law Computer and Cyberspace Law Convention, Dayton, Ohio, June 8, 2001
- *"Records Retention, Privacy, and the Age of Electrons."* Financial Women's Association, Silicon Valley Conference, San Francisco, California, March 2001
- *"Managing The Mountain -- Strategies For Computer Based Evidence."* Clifford Chance, In-house conference, London, England, March 2001
- *"Managing The Mountain -- Strategies For Computer Based Evidence."* The Computer Law Association European CyberSpaceCamp Conference, Amsterdam, the Netherlands, March, 2001
- *"What You Need to Know About Domain Names: Introduction and Overview."* Domain Name Protection, Litigation & Management Summit, San Francisco, California, February 2001
- *"Computer Based Evidence: Strategies To Manage The Mountain"* Herman Middleton, New Orleans, January 2001
- ALI-ABA Trial Of A Software Patent Case: Panel participant and software expert presenting video taped testimony for the mock trial. Chicago, Illinois, September 2000



- *"The ABCs of CBE (Computer-Based Evidence)."* Oregon Criminal Defense Lawyers Association, Bend, Oregon, June 2000
- *"New Technologies: New Challenges for the Law"* (Paper co-authored with Andy Johnson-Laird, William R. Trost), Dayton Law Journal, June, 2000
- *"Computers and the Law: Collaboration or Collision?"* (Paper co-authored with Andy Johnson-Laird, William R. Trost), The Second Annual Symposium On Information Technology And Cyberspace Law, May, 2000 (Osgoode Hall Law School of York University, Toronto, Canada)
- *"Electronic Evidence (Too Much of A Good Thing?)"* Santa Clara County Bar Association, May, 2000 (CLE)
- *"Bringing Your Story Home: Technology In The Courtroom"* Willamette University College Of Law, May 2000
- *"Computer Based Evidence – The ABCs of CBE"* Willamette University College of Law, April, 2000
- *"Making Sense of Electronic Evidence"* Conference For Federal Defender Administrators And Computer Systems Administrators, April, 2000
- FJC Mini Conference on Discovery of Computerized Information, Hastings College Of Law, March, 2000
- *"Techno-Archeology™ - The Analysis of Failed Software Development"* Lane Powell Spears Lubersky, November, 1999 (CLE)
- *"Y2K Incoming! – Preserving Evidence For The Inevitable"* Oregon State Bar, Computer Law Section, November, 1999 (CLE)
- *"The Preservation and Analysis of Computer-based Evidence,"* Powell, Goldstein, Frazer & Murphy, August, 1999 (CLE)
- *"Forensic Software Analysis: Preservation Discovery and Analysis of Computer-based Evidence,"* Computer Related Investigations, Management, and Education (CRIME), April 13, 1999
- *"Forensic Software Analysis: The Preservation and Analysis of Computer-based Evidence,"* Miller, Nash, Wiener, Hager & Carlsen, February, 1999
- *"A Silent Chorus – The Relevance of Electronic Evidence,"* Willamette University College of Law, Internet Law Caucus, November 1998

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## Expert Testimony

### Court Appointed Expert

Court Data System Advisor to the Honorable Marvin J. Garbis, in the U.S. District Court for the District of Maryland, in the matter of *Vaughn G., et al. v. Walter G. Amprey, et al.*, Civil Action No. MJG-84-1911.

## Trial Testimony

- Admitted as an expert in <<\*\*\*\*\*>> in the US District Court for the Eastern District of Virginia, *BMG Rights Management (US) LLC, and Round Hill Music LP v. Cox Enterprises, Inc., Cox Communications, Inc., Coxcom, LLC*, Case No. 1:14-cv-1611 (LOG/JFA) December 2015 (Engaged by BMG Rights Management (plaintiff) for <<\*\*\*\*\*>>)
- Admitted as an expert in software investigation in the US District Court for the Northern District of California San Francisco Division, *Fujifilm Corporation v. Motorola Mobility LLC*, Case No. C12-03587 RS; April 2015 (Engaged by Fujifilm (plaintiff) Corporation for source code analysis related to accused software in the context of a patent infringement suit)
- Admitted as an expert in computer science, source code, and software development in the US District Court for the District of Delaware, *Finjan, Inc v. Symantec Corp., Webroot Software, Inc. Websense, Inc. and Sophos, Inc.*, Civil Action No. 10-593-GMS; December 2013. (Engaged by Websense, Inc. for source code analysis related to accused software in the context of a patent infringement suit.)
- Admitted as an expert to provide testimony about video data in the District Court of Bexar County, Texas, 407<sup>th</sup> Judicial District, *Karen D. Griffin, individually and Virginia L. Brunner, as next of friend of Karen D. Griffin v. Union Pacific Railroad Company, Kenneth Piper and Gary Anderson*, Cause No. 2010-CI08523; March 2012 (Engaged by the plaintiff, discovery issues and analysis relating to analysis of electronic Track Image Recorder Video files.)
- Admitted as an expert in computer software in the US District Court for the Eastern District of Virginia, Norfolk Division, *ActiveVideo Networks, Inc. v. Verizon Communications, Inc. Verizon Services Corp., Verizon Virginia, Inc. and Verizon South, Inc.*, Civil Action No. 2:10-cv-248; July 2011. (Engaged by ActiveVideo Networks for source code analysis related to accused devices in the context of a patent infringement suit.)
- Admitted as an expert in software engineering in the U.S. District Court for the Eastern District of Texas, Tyler Division, *Clear With Computers, LLC. v. Hyundai Motor America, Inc.*, Case No. 6:09-cv-479 LED; June 2011. (Engaged by Hyundai Motor America, Inc. for invalidity analysis in the context of a patent infringement suit.)
- Admitted as an expert in computer based evidence in *The People of the State of California v. Jason Cai*, Superior Court of the State of California, for the County of Santa Clara, Case No. CC810427; July 2010. (Engaged by counsel for defendant in a homicide matter)
- *Bill Fraser, Soo Min Fay, Doug Frosch, George Marshall, Cal Mitchell, Jim Rubino, Tim Shea, John Sullivan, and Steve Munson v. Valley Energy Investment Fund U.S., L.P., Vulcan Investment Holdings, LLC, Denham Commodity Partners Fund V LP, Denham Capital Management L.P., Merrill Lynch Commodity Partners, LLC, Scott Mackin, David Owens, Rod Wimer, Robert Warburton, Todd Bright, Robert*

*Jones, and Vulcan Power Company*, Circuit Court for the State of Oregon, Lane County, Case No. 160826841; June 2010. (Engaged by Plaintiffs to assess whether discovery costs incurred by Defendants were reasonable in the context of case fact pattern.)

- Admitted as expert in evidentiary hearing In the Circuit Court of the 11<sup>th</sup> Judicial Circuit, In and For Miami-Dade County, Florida, General Jurisdiction Division, *Jarrell Cannon a minor by and through his mother and natural guardian, Alicia Lott, and Alicia Lott, individually v. Ford Motor Company, and Hazel Edgecomb*, Case No. 05-21648 CA20; May 2009 (Engaged by plaintiffs in the context of technical issues in discovery)
- Admitted as an expert in the District Court of Tarrant County, Texas, discovery hearing, *Estate of Dwayne Freeto, et al. v. Ford Motor Company and Scott Hilburn*, Case No. 348-233429-08; March 2010. (Engaged by the Estate of Dwayne Freeto, et al., discovery issues and analysis relating to electronic data.)
- *CollegeNet, Inc. v. XAP Corporation*, U.S. District Court for the District of Oregon, Case No. 03-1229-BR; June 2008 (Engaged by XAP Corporation, analysis of inequitable conduct during patent prosecution.)
- Admitted as an expert on software analysis in *Grantley Patent Holdings, Ltd. v. Clear Channel Communications, Inc., et al.*, Case No. 9:06cv259; April, 2008 (Engaged by Grantley Patent Holdings, Ltd., patent infringement/validity.)
- Markman hearing in *Grantley Patent Holdings, Ltd. v. Clear Channel Communications, Inc., et al.*, Case No. 9:06cv259; October 2007 (Engaged by Grantley Patent Holdings, Ltd.)
- Admitted as a software expert in *Ricoh Corporation and Ricoh Company, Ltd. v. Pitney Bowes, Inc.*, Case No. 02-5639 (GEB); November 2006 (Engaged by Pitney Bowes Inc., patent infringement/validity.)
- Admitted as an expert on software analysis *CollegeNet, Inc. v. XAP Corporation*, U.S. District Court for the District of Oregon, Case No. 03-1229-BR; September 2006 (Engaged by XAP Corporation, patent infringement/validity.)
- Admitted as an expert on computer software development, clean room procedures, and database in *HotSamba, Inc. v. Caterpillar, Inc.*, U.S. District Court Northern District of Illinois Eastern Division, Case No. 01-C-5540, September 2006 (Engaged by Caterpillar Inc., copyright/licensing dispute/breach of contract.)
- Admitted as an expert on software development and the recover and analysis of computer based evidence in *Compuware Corporation v. International Business Machines Corp.*, United States District Court for the Eastern District of Michigan, Case No. 02-70906, March, 2005 (Engaged by Compuware Corporation to perform analysis of computer based evidence relating to copyright/trade secret issues.)

- Admitted as an expert on the analysis of computer based evidence in *Norman B. Feaster et al. v. CSX Transportation, Inc.*, Franklin County Circuit Court Case No. 10,913-CV, November 2002 (Engaged by Norman B. Feaster, et al, railroad case involving analysis of locomotive event recorder data.)
- Admitted as an expert on recovery and analysis of computer based evidence in *Bridgestone/Firestone, Inc., ATX, ATX II, and Wilderness Tires, Products Liability Litigation*, United States District Court Southern District of Indiana Indianapolis Division Court Case No. IP00-9373-C-B/S MDL No. 1373, February 2002 (Engaged by Plaintiffs' Litigation Committee, discovery issues and analysis relating to electronic data.)
- Admitted as an expert on computer software and the analysis of computer based evidence in *United States of America v. Santee Sioux Tribe of Nebraska*, United States District Court for the District of Nebraska, Case No. 8:96CV367, October, 2001 (Engaged by Santee Sioux Tribe of Nebraska, analysis relating to the software used for operation of computer controlled gaming devices.)
- Admitted as an expert on recovery and analysis of computer based evidence in *Tim O'Neil v. Levi Strauss and Company et al*, Superior Court of California, Case No. 221466, February, 2001 (Engaged by Levi Strauss and Company, recover and analyze computer based evidence.)
- Admitted as an expert on recovery and analysis of computer based evidence in *State of California v. Bahram Saghari*, Superior Court of California, Case No. 205525, February, 2000. (Engaged by Bahram Saghari, recover and analyze computer source code and computer based evidence)
- Admitted as an expert on computer software development in *Novinger v. TRW et al.*, U.S. District Court for the District of Oregon, Case No. CV96-286-JE, July, 1998. (Engaged by Novinger, to review software and data management practices relating to an identity theft case)

## Arbitration Testimony

- *In the Matter of the Companies' Creditors Arrangement Act, R.S.C. 1985, c.C.36, as Amended And in the Matter of a Plan or Arrangement of Nortel Networks Corporation, Nortel Networks Limited, Nortel Networks Global Corporation and Nortel Networks Technology Corporation*, (discovery hearing ordered by) Ontario Superior Court of Justice, Court File No. 09-CL-7950 (Engaged by SNMP Research International and SNMP Research, Inc. for analysis of technical materials and discovery issues)
- Judicial Arbitration and Mediation Services, Inc. (JAMS), *The Clearing Corporation v. The Chicago Merchantile Exchange, Inc.*, Case No. 06CH10553, April 2008 (Engaged by The Clearing Corporation relating to breach of license/copyright dispute.)
- Judicial Arbitration and Mediation Services, Inc. (JAMS), *Polimaster Ltd and NA&SE Trading Co., Limited and RAE Systems, Inc.*, Case No. 1110009296,

March 2007 (Engaged by RAE Systems, Inc. to analyze software relating to copyright, trade secret, and reverse engineering allegations.)

- International Commercial Arbitration Act, *MPI Technologies, Inc., and Xerox Canada, Ltd and Xerox Corporation*, January 2005 (Engaged by MPI Technologies to analyze computer software and evidence relating to a breach of license/copyright dispute.)
- American Arbitration Association, *Bionic Buffalo Corporation v. Integrated Systems, Inc. and WindRiver Systems, Inc.*, Case No. 79 117 0011299, February 2002. (Engaged by Integrated Systems, Inc. to analyze computer software and evidence relating to a breach of contract/copyright dispute.)
- American Arbitration Association, *Rollins, Inc., v. ALE Systems*, Case No. AAA30 181 00081 98, June, 1999 and August 1999. (Engaged by Rollins, Inc., to analyze computer software and evidence relating to a breach of contract/failed software development dispute.)

## Deposition Testimony

- US District Court for the District of Delaware, *Avaya, Inc. v. SNMP Research Inc.*, Case No. 12-191-RGA; January 2016
- US District Court for the Southern District of California, *Anthony Johnson v. Storix, Inc.*, Case No. 14-CV-1873-H-BLM; October 2015
- US District Court for the Eastern District of Virginia, *BMG Rights Management(US) LLC, and Round Hill Music LP v. Cox Enterprises, Inc., Cox Communications, Inc., CoxCom, LLC*, Case No. 1:14-cv-1611(LOG/JFA); August 2015
- US District Court for the Northern District of California San Francisco Division, *Fujifilm Corporation v. Motorola Mobility LLC*, Case No. C12-03587 RS; November 2014
- US District Court for the Eastern District of New York; *Point 4 Data Corporation and Dynamic Concepts, Inc. v. Tri-State Surgical Supply & Equipment, Ltd., SJ Computers, Inc., and Shmuel Judkovitz*, Case No. 11 CV 0726 (RJD); June 2012
- US District Court for the District of Delaware; *Finjan, Inc. v. McAfee, Inc., Symantec Corp., Webroot Software, Inc., Websense Inc., and Sophos, Inc.*, Case No. 10-593-GMS; June 2012 (Engaged by defendant Websense Inc.; patent infringement)
- US District Court for the Eastern District of Louisiana; *Sean Bowie v. The New Orleans Public Belt Railroad Commission, d/b/a New Orleans Public Belt Railroad Company*, Case No. 11-00755; June 2012
- US District Court for the Central District of California, Southern Division; *Bryan Pringle v. William Adams, Jr., et al.*, Case No. SACV10-1656 JST (RZx);



January 2012 (Engaged by plaintiff to address issues related to spoliation and copyright infringement allegations)

- In the District Court of Bexar County, Texas, 407<sup>th</sup> Judicial District; *Karen Griffin v. Union Pacific Railroad Company*, et al., Cause No. 2010-CI08523; December 2011 (Engaged by plaintiffs in the context of a railroad case requiring analysis of TIR (Track Image Recorder) video)
- US District Court for the Western District of Pennsylvania, *University of Pittsburgh of the Commonwealth System of Higher Education dba University of Pittsburgh v. Varian Medical Systems, Inc.*; Case No. 2:08-cv-01307, September 2011 (Engaged by University of Pittsburgh; patent infringement)
- US District Court for the Eastern District of Virginia, Norfolk Division, *ActiveVideo Networks, Inc. v. Verizon Communications, Inc., Verizon Services Corp., Verizon Virginia, Inc., and Verizon South Inc.*; Case No. 2:10-cv-248-RAJ-FBS, June 2011 (Engaged by ActiveVideo Networks, Inc. ; patent infringement)
- U.S. District Court for the Eastern District of Texas, Tyler Division, *Clear With Computers, LLC. v. Hyundai Motor America, Inc.*, Case No. 6:09-cv-479 LED, April 2011 (Engaged by Hyundai Motor America, Inc.; patent infringement suit.)
- In the Circuit Court of the 11<sup>th</sup> Judicial Circuit, In and For Miami-Dade County, Florida, General Jurisdiction Division, *Jarrell Cannon a minor by and through his mother and natural guardian, Alicia Lott, and Alicia Lott, individually v. Ford Motor Company, and Hazel Edgecomb*, Case No. 05-21648 CA20, March 2011 (Engaged by plaintiffs in the context of technical issues in discovery)
- U.S. District Court for the Eastern District of Texas, Tyler Division, *Clear With Computers, LLC. v. Hyundai Motor America, Inc.*, Case No. 6:09-cv-479 LED, March 2011 (Engaged by Hyundai Motor America, Inc. patent infringement suit.)
- In the Circuit Court of Cook County, Illinois, County Department-Chancery Division, *Citadel Investment Group, v. Teza Technologies, LLC, et al.*, Case No. 09 CH 22478, July 2010. (Engaged by Teza Technologies to verify effectiveness of clean room protocol.)
- U.S. District Court for the District of Oregon, *CollegeNet, Inc. v. XAP Corporation*, Case No. 03-1229-BR, April 2008. (Engaged by XAP Corporation, to analyze computer software in the context of a patent infringement suit.)
- U.S. District Court for the Western District of Wisconsin, *Extreme Networks, Inc. v. Enterasys, Inc.*, Case No. 07-C-0229-C, February 2008. (Engaged by Enterasys, Inc., patent infringement.)
- U.S. District Court for the Eastern District of Texas, Lufkin Division, *Grantley Patent Holdings, Ltd. v. Clear Channel Communications, Inc.*, et al; Case No. 9:06cv259, February 2008 (Engaged by Grantley Patent Holdings, Ltd., patent infringement.)



- U.S. District Court for the Western District of Wisconsin, *Extreme Networks, Inc. v. Enterasys, Inc.*, Case No. 07-C-0229-C, January 2008. (Engaged by Enterasys, Inc., patent infringement.)
- U.S. District Court Northern District of California San Jose Division, *Creative Science Systems, Inc. v. Forex Capital Markets LLC and REFCO Group Ltd., LLC*, Case No. C04-03746 JF (RS), September 2006. (Engaged by Forex Capital Markets to perform analysis in the context of a software licensing dispute.)
- U.S. District Court Northern District of Minnesota, *Ricoh Corporation and Ricoh Company, Ltd. v. Pitney Bowes, Inc.*, Case No. 02-5639 (GEB), August 2006. (Engaged by Pitney Bowes Inc., patent infringement.)
- U.S. District Court Northern District of Illinois Eastern Division, *HotSamba, Inc. v. Caterpillar, Inc.*, Case No. 01-C-5540, July 2006. (Engaged by Caterpillar Inc.)
- U.S. District Court for the District of Oregon, *CollegeNet, Inc. v. XAP Corporation*, Case No. 03-1229-BR, March 2006. (Engaged by XAP Corporation, to analyze computer software in the context of a patent infringement suit.)
- U.S. District Court Northern District of California San Jose Division, *Creative Science Systems, Inc. v. Forex Capital Markets LLC and REFCO Group Ltd., LLC*, Case No. C04-03746 JF (RS), March 2006. (Engaged by Forex Capital Markets to perform analysis in the context of a software licensing/copyright dispute.)
- U.S. District Court Central District of California Western Division, *Imax Corporation and Three-Dimensional Media Group, Ltd. V. In-Three, Inc.*, Case No. CV-05-1795 (Mcx), August 2005. (Engaged by In-Three, Inc., to perform analysis of computer software relating to patent validity and prior art.)
- Superior Court of the State of California, County of San Diego, *Del Mar Datatrac, Inc. v. ProLender Solutions, Inc., et al.*, Case No. GIC 817717, June 2004 (Engaged by Del Mar Datatrac, to analyze computer software in the context of a trade secret/copyright case and oversight of subsequent software production to verify effectiveness of clean room procedures used during remediation.)
- U.S. District Court Northern District of California Oakland Division, *Compuware Corporation v. International Business Machines*, Case No. 02-70906, May 2003, June 2003, June 2004, and January 2005. (Engaged by Compuware Corporation to perform analysis of computer software and software development efforts in the context of a copyright/trade secret dispute.)
- U.S. District Court Northern District of California Oakland Division, *VMware, Inc. v. Connectix Corporation and Microsoft Corporation*, Case C03 00654 CW, April 2003. (Engaged by Connectix Corporation, to perform analysis of computer software and potential prior art in the context of a patent dispute.)
- U.S. District Court for the Eastern District of Virginia, Alexandria Division, *Washington Post. Newsweek Interactive Company, LLC, et al v. The Gator*

*Corporation*, Case No. 02-909-A, December 2002. (Engaged by The Gator Corporation for analysis of computer software and computer-based evidence relating to a dispute involving pop-up advertisements.)

- Franklin County Circuit Court, *Norman B. Feaster et al. v. CSX Transportation, Inc., et al.*, Franklin County Circuit Court Case No. 10,913-CV, November 2002. (Engaged by Norman B. Feaster, et al. in the context of a railroad case requiring analysis of locomotive event recorder data.)
- The Superior Court Of The State Of California, *Tim O'Neil v. Levi Strauss and Company, Earnest "Hap" Wheale, Katy Basile, Ruth Meyler, and DOES 1 through 100*, Case No. 305531, January 2001. (Engaged by Levi Strauss and Company, recover and analyze computer based evidence.)
- U.S. District Court for the Northern District of Illinois, Eastern Division, *Chris-Craft Industrial Products, Inc. v. Kuraray Company, Ltd., Kuraray America, Inc. Cast Film Technology, Inc. and James R. Rossman*, Case No. 98 CV 7298. (Engaged by Chris-Craft to recover and analyze data related to trade secret misappropriation.)
- U.S. District Court for the District of Oregon, *Novinger v. TRW*, Case No. CV96-286-JE. (Engaged by Novinger, to analyze computer software and data management practices relating to an identity theft case.)